



## IMAGING AND DIAGNOSTIC TESTING

### APPLICATION OF THE APPROPRIATENESS CRITERIA TO STRESS ECHOCARDIOGRAPHIC STUDIES IN AN ACADEMIC CENTER

ACC Poster Contributions

Georgia World Congress Center, Hall B5

Tuesday, March 16, 2010, 9:30 a.m.-10:30 a.m.

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Session Title: Risk Assessment and Stress Echocardiography

Abstract Category: Stress Echocardiography

Presentation Number: 1260-239

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**Background:** The American College of Cardiology Foundation (ACCF) has developed appropriateness criteria for stress echocardiography, the application of which to an Academic Health Center (after their publication) has not been tested. We retrospectively evaluated 1903 patients referred to our Echo Laboratory to do stress echocardiography.

**Methods:** An experienced cardiologist evaluated each patient and categorized him into one of the following groups, according to the application of the appropriateness criteria: Appropriate (score 7-9), Uncertain (score 4-6), Inappropriate (score 1-3). These patients have been examined to our Echo Lab over a 6-month period (09/2008-06/2009).

**Results:** 1903 patients (mean age  $64 \pm 8$  y, 1033 men) underwent stress echocardiography at the Echo Lab. From these patients 841 (44%) were hypertensive, 625 (32.8%) were diabetic, 802 (42.1%) had hypercholesterolemia, 656 (34.4%) were smokers, 656 (34.4%) had a family history of CAD and 809 (42.5%) had already known CAD. From our retrospective evaluation of these 1903 cases, 745 (39.1%) were classified as Appropriate (A Score 7 to 9), 660 (34.6%) were classified as Uncertain (U Score 4 to 6) and 498 (26.1%) as Inappropriate (I Score 1 to 3) for the performance of stress echocardiography.

**Conclusions:** This retrospective study, after which 26.1% of the patients undergoing stress Echocardiography were Inappropriate for the performance of this test, demonstrates the need for the application of the appropriateness criteria in order to achieve quality improvement in the clinical use of this test and also a reduction of expenses, so as to increase the efficiency of our healthcare system.